

CLAIM AMENDMENTS

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims

1. **(Previously Presented)** A method of producing monoclonal antibodies specific to an antigen of low immunogenicity comprising:
 - a. conjugating the antigen chemically to a carrier molecule, wherein the carrier molecule is a heat-shock protein;
 - b. immunizing a mammal with the conjugated antigen;
 - c. harvesting B cells from the mammal;
 - d. creating hybridomas from the harvested B cells;
 - e. screening the hybridomas for specificity to the native antigen.
2. **(Original)** The method of claim 1, wherein the carrier molecule is HSP70.
3. **(Previously Presented)** The method of claim 1, wherein the mammal has an intact immune system.
4. **(Cancelled)**
5. **(Previously Presented)** The method of claim 1, wherein the B cells are harvested from ascites.
6. **(Original)** The method of claim 1, wherein the B cells are harvested from lymph nodes.
7. **(Original)** The method of claim 1, wherein the B cells are harvested from blood.
8. **(Original)** The method of claim 1, wherein the B cells are harvested from spleen.
9. **(Original)** The method of claim 1, wherein the hybridoma is created using an immortal mouse cell.

10. **(Original)** The method of claim 9, wherein the immortal mouse cell is a mouse myeloma cell.
11. **(Original)** The method of claim 1, wherein the hybridoma is created using an immortal human cell.
12. **(Original)** The method of claim 1, wherein the hybridoma is created using an immortal rat cell.
13. **(Currently Amended)** The method of claim 1, wherein the screening for specificity is done by a method chosen from the group consisting of radioimmunoassay, enzyme-linked immunosorbant assay, "sandwich" immunoassay, immunoradiometric assay, gel diffusion precipitation reaction, immunodiffusion assay, *in situ* immunoassay, western blot, precipitation reaction, agglutination assay, complement fixation assay, immunofluorescence assay, ~~protein-A~~ assay, virus visualization assay, biological activity modulation assay, and immunoelectrophoresis assay.

Claims 14-25. **(Cancelled)**

26. **(Previously Presented)** A method of producing monoclonal antibodies specific to E7 oncoprotein comprising:
- a. conjugating the E7 oncoprotein chemically to a carrier molecule wherein the carrier molecule is a heat-shock protein;
 - b. immunizing a mammal with the conjugated antigen;
 - c. harvesting B cells from the mammal;
 - d. creating a hybridoma from the harvested B cells; and
 - e. screening the hybridomas for specificity to the native E7 oncoprotein.
27. **(Original)** The method of claim 26, wherein the chemical conjugation comprises:

a. creating a plasmid with an nucleotide sequence encoding E7 oncoprotein and an nucleotide sequence encoding HSP70; and

b. transfecting a host cell with the plasmid, wherein the host cell transcribes the nucleotide sequences into the conjugated E7 oncoprotein.

28. **(Original)** The method of claim 27, wherein the nucleotide sequence encoding E7 oncoprotein is SEQ ID NO: 1.

29. **(Original)** The method of claim 27, wherein the nucleotide sequence encoding E7 oncoprotein is SEQ ID NO: 3.

30. **(Original)** The method of claim 27, wherein the nucleotide sequence encoding HSP70 is SEQ ID NO: 5.

31. **(Previously Presented)** The method of claim of claim 27, wherein the host cell is *E coli*.

32. **(Original)** The method of claim 26, wherein the carrier molecule is HSP70.

33. **(Previously Presented)** The method of claim 26, wherein the mammal has an intact immune system.

34. **(Cancelled)**

35. **(Previously Presented)** The method of claim 26, wherein the mammal is a mouse.

36. **(Original)** The method of claim 26, wherein the B cells are harvested from ascites.

37. **(Original)** The method of claim 26, wherein the B cells are harvested from lymph nodes.

38. **(Original)** The method of claim 26, wherein the B cells are harvested from blood.

39. **(Original)** The method of claim 26, wherein the B cells are harvested from spleen.
40. **(Original)** The method of claim 26, wherein the hybridoma is created using an immortal mouse cell.
41. **(Original)** The method of claim 40, wherein the immortal mouse cell is a mouse myeloma cell.
42. **(Previously Presented)** The method of claim 41, wherein the mouse myeloma cell is a Sp2/0-Ag14 myeloma cell.
43. **(Original)** The method of claim 26, wherein the hybridoma is created using an immortal human cell.
44. **(Original)** The method of claim 26, wherein the hybridoma is created using an immortal rat cell.
45. **(Currently Amended)** The method of claim 26, wherein the screening for specificity is done by a method chosen from the group consisting of radioimmunoassay, enzyme-linked immunosorbant assay, "sandwich" immunoassay, immunoradiometric assay, gel diffusion precipitation reaction, immunodiffusion assay, *in situ* immunoassay, western blot, precipitation reaction, agglutination assay, complement fixation assay, immunofluorescence assay, ~~protein-A assay~~, virus visualization assay, biological activity modulation assay, and immunoelectrophoresis assay.
- Claims 46-74. **(Cancelled)**
75. **(Previously Presented)** A method of producing monoclonal antibodies specific to a Prion protein peptide comprising:

a. conjugating the Prion protein peptide chemically to a carrier molecule wherein the carrier molecule is HSP70 and wherein the prion protein peptide is selected from the group consisting of SEQ ID NO: 6, SEQ ID NO: 7 and SEQ ID NO: 9;

- b. immunizing a mammal with the conjugated antigen;
- c. harvesting B cells from the mammal;
- d. creating a hybridoma from the harvested B cells; and
- e. screening the hybridomas for specificity to the native Prion protein.

76. **(Original)** The method of claim 75, wherein the conjugating is performed chemically using glutaraldehyde.

77. **(Original)** The method of claim 75, wherein the Prion protein peptide is SEQ ID NO: 6.

78. **(Original)** The method of claim 75, wherein the Prion protein peptide is SEQ ID NO: 7

79. **(Original)** The method of claim 75, wherein the Prion protein peptide is SEQ ID NO: 9

80. **(Cancelled)**

81. **(Previously Presented)** The method of claim 75, wherein the mammal is a mouse.

82. **(Original)** The method of claim 75, wherein the screening is done using an enzyme-linked immunosorbent assay.

83. **(Cancelled)**

84. **(Previously Presented)** A method of producing monoclonal antibodies specific to hyaluronic acid comprising:

- a. conjugating the hyaluronic acid chemically to a carrier molecule wherein the carrier molecule is a heat-shock protein;

- b. immunizing a mammal with the conjugated antigen;
- c. harvesting B cells from the mammal;
- d. creating a hybridoma from the harvested B cells; and
- e. screening the hybridomas for specificity to the native hyaluronic acid.

85. **(Previously Presented)** A method of producing monoclonal antibodies specific to matrix metalloprotease 3 comprising:

- a. conjugating the matrix metalloprotease 3 chemically to a carrier molecule wherein the carrier molecule is a heat-shock protein;
- b. immunizing a mammal with the conjugated antigen;
- c. harvesting B cells from the mammal;
- d. creating a hybridoma from the harvested B cells; and
- e. screening the hybridomas for specificity to the native matrix metalloprotease 3.

86. **(Original)** The method of claim 85, wherein the conjugating is performed chemically using glutaraldehyde.

87. **(Original)** The method of claim 85, wherein the carrier molecule is HSP70.

88. **(Previously Presented)** The method of claim 85, wherein the mammal is a mouse.

89. **(Original)** The method of claim 85, wherein the screening is done using an enzyme-linked immunosorbent assay.